



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO. 09/142,328	FILING DATE 01/27/99	FIRST NAMED INVENTOR HANSEN	ATTORNEY DOCKET NO. H 1515-2447
-------------------------------	-------------------------	--------------------------------	------------------------------------

JOSEPH LUCCI
WOODCOCK WASHBURN KURTZ
MACKIEWICZ & NORRIS
ONE LIBERTY PLACE 46TH FLOOR
PHILADELPHIA PA 19103

HM22/0913

EXAMINER MARSCHEL, A

ART UNIT 1655	PAPER NUMBER 7
------------------	-------------------

DATE MAILED: 09/13/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/142,326

Applicant(s)
Hansen et al.

Examiner
Ardin Marschel

Group Art Unit
1655



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-21 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☐ Claim(s) _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claims 1-21 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The ~~proposed~~ drawing ~~specification~~, filed on 1/27/99 ~~is~~ ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

The art unit designated for this application has changed. Applicant(s) are hereby informed that future correspondence should be directed to Art Unit 1655.

This application has been filed under 35 U.S.C. § 371 and has been determined to have Lack of Unity of invention under PCT Rule 13.1 and under 37 CFR § 1.499 regarding the U.S. National Stage application as summarized below:

Restriction to one of the following inventions is required under 37 CFR § 1.499:

I. Claims 1-9 and 11-21 drawn to nucleic acid mimics and the first claimed methods of use thereof, classified in Classes 536, 530, and 435; subclasses 22.1, 300, and 6; respectively.

II. Claim 10, drawn to compounds for the preparation of nucleic acid mimics, classified in Class 536, subclass 18.7.

The Special technical feature that is present in Group I is the nucleic acid mimic which contains a non-naturally occurring backbone structure to which is appended a plurality of heterocyclic bases, at least one of said bases being substituted with at least one sterically bulky substituent at a position one, two, or three atoms removed from the position of attachment of said base to the backbone. This is present at least in Group I. Group II lacks a plurality of heterocyclic bases and a backbone. Group II also requires that moiety "M" is linked to the moiety "N" therein by a one to three carbon linker. This causes the sterically bulky substituent R³ to be linked to "N" by two to

four atoms at least which is different from the one to three atoms linkage of a sterically bulky group to a backbone in Group I. This assumes that $R^1 - N - R^2$ of the instant Group II claim 10 to be possibly a backbone moiety if such monomers were linked together to make the polymers as exemplified elsewhere in the instant disclosure. In summary, the Special Technical Feature of Group I is not present in Group II and supports this Lack of Unity determination.

Because these inventions have Lack of Unity for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR § 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR § 1.821(a)(1) and (a)(2). See page 22 of the instant specification, for example. However, this application fails to comply with the requirements of 37 CFR § 1.821 through 1.825 because no submission of a computer readable form of sequences has been submitted. Applicants are given the same response time regarding this failure to comply as that set forth to respond to this office action.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703) 308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached on (703) 308-1152.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

September 9, 1999

Ardin H. Marschel
ARDIN H. MARSCHEL
PRIMARY EXAMINER